



U.S. Fish & Wildlife Service

News Release

Pacific Islands External Affairs Office

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For Release: June 24, 2010
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PIEA-10-14
RO-10-093

Two Hawaiian Damselfly Species Now Listed As Endangered

Two species of rare Hawaiian damselflies were designated as endangered species today by the U.S. Fish and Wildlife Service. The final rule published in today's *Federal Register* adds the flying earwig Hawaiian damselfly and the Pacific Hawaiian damselfly, found only in Hawai'i, to the federal list of threatened and endangered species.

Damselflies and dragonflies are known collectively as *pinao* by native Hawaiians. Damselflies have slender bodies and hold their wings parallel to the body while at rest, while dragonflies are stout-bodied and hold their wings perpendicular to each side of their body.

"These are the first damselfly species in the nation to receive federal protection," said Loyal Mehrhoff, field supervisor of the Fish and Wildlife Service's Pacific Islands Fish and Wildlife Office. "Insects, as well as all native plants and animals, play a vital role in the health of our environment. Recognizing the importance these colorful insects play in the natural balance of Hawai'i's stream and water systems will hopefully encourage improved protection and management of these fragile aquatic ecosystems that will benefit both damselflies and humans."

On July 8, 2009, the Service published a proposed rule to list these two species of Hawaiian damselflies as endangered. Two public comment periods, totaling 90 days, allowed the public and other interested parties the opportunity to submit data and comments.

During the comment period, the Service received a total of 5 written comments and no requests for public hearings. Three comments were received from State of Hawai'i agencies and two were from the same nongovernmental organization. Three comments supported the listing of the two Hawaiian damselflies, two comments neither supported nor opposed the listings, and one of these comments provided additional information on both damselfly species.

The flying earwig Hawaiian damselfly has been a candidate for protection under the Endangered Species Act since 1996, and the Pacific Hawaiian damselfly has been a candidate since 1994. Federal listing of these two species will automatically invoke State listing under Hawai'i's endangered species law. Lands that support these two damselfly species are owned by various private parties, the State of Hawai'i and the Federal government.

The flying earwig Hawaiian damselfly is a comparatively large and elongated species. The males are blue and black in color and exhibit distinctive, greatly enlarged, pincer-like appendages that are used to clasp the female during mating. Females are predominantly brownish in color. The adults measure from 1.8 to 1.9 inches in length and have a wingspan of 1.9 to 2.1 inches. The wings of both sexes are clear except for the tips, which are narrowly darkened along the front margins.

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Little is known about the biology of the flying earwig Hawaiian damselfly, but it is believed that the species has semi-terrestrial or terrestrial naiads (immature larval stages). Adults are often associated with thick mats of uluhe ferns on moist banks. Historically found on the islands of Hawai‘i and Maui, the flying earwig Hawaiian damselfly has not been seen on the island of Hawai‘i for over 80 years. Currently, the species is known only from one location on Maui.

The primary threats to the flying earwig Hawaiian damselfly are habitat loss and degradation due to agriculture and urban development, stream alterations and dewatering, feral pigs and nonnative plants, and natural catastrophes such as hurricanes and landslides; predation by nonnative species such as ants and bullfrogs; overcollection; and the small number of individuals.

The Pacific Hawaiian damselfly is a relatively small, darkly-colored species, with adults measuring from 1.3 to 1.4 inches in length and having a wingspan of 1.3 to 1.6 inches. Both sexes are largely black in color. Males exhibit brick red striping and patterns while females exhibit light green striping and patterns. This species is most easily distinguished from other Hawaiian damselflies by the extremely long lower abdominal appendage of the male, which greatly exceeds the length of the upper appendage. Females lay eggs in submerged aquatic vegetation or in mats of moss or algae on submerged rocks, and hatching occurs in about ten days.

The Pacific Hawaiian damselfly was historically found on all of the main Hawaiian Islands except Kaho‘olawe and Ni‘ihau. Historically found at lower elevations below 2,000 feet, the species breeds predominantly in standing water such as marshes, ponds and pools along stream channels. The species has disappeared from at least 18 known localities throughout the islands and is completely gone from the islands of Kaua‘i, O‘ahu and Lana‘i. Currently, the Pacific Hawaiian damselfly is found only on the islands of Moloka‘i and Maui, and from a single population on the island of Hawai‘i.

The primary threats to the Pacific Hawaiian damselfly are habitat loss and modification by agriculture and urban development; stream alterations and dewatering; nonnative plants; natural catastrophes such as hurricanes, drought and landslides; and predation by nonnative species such as fish, backswimmers, and bullfrogs.

The Service has determined that the designation of critical habitat is prudent for both damselfly species; however, the agency is unable to identify the physical and biological features essential to the conservation of these species and is therefore unable to determine areas that contain these features at this time. As a result, the Service is not designating critical habitat for these species in this final rule, but will do so when that information is available.

Copies of the final rule may be downloaded from the Service’s website at <http://www.fws.gov/pacificislands/>.

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people. We are both a leader and trusted partner in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals and commitment to public service. For more information on our work and the people who make it happen, visit www.fws.gov.

Note to Editors: Images are available by calling Ken Foote at 808 792-9535